The Lowell Walter House
½ mile west off Route W-38
Quasqueton
Buchanan County
Iowa

HABS No. IA-130

HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
Heritage Conservation and Recreation Service
Department of the Interior
Washington, D.C. 20243

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HISTORIC AMERICAN BUILDINGS SURVEY HABS No. IA-130

THE LOWELL WALTER HOUSE

(CEDAR ROCK)

Location: ½ mile west off Route W-38, Quasqueton, Buchanan County, Iowa.

Present Owner and Occupant: Lowell E. Walter.

Present Use: Summer house.

Significance: The house is an important example of a midwestern residential type designed by Frank Lloyd Wright, and characterized by its provision for living simply and in harmony with nature.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: 1948-1950.

2. Architect: Frank Lloyd Wright (1869-1959).

3. Original and subsequent owners: Since the completion of the house's construction in 1950, Lowell E. Walter has been the owner of the house.

4. Original construction and plan: The design of the house is evaluated on three counts: as a design for living in harmony with nature, as a design for living simply, and as an example of the work of America's well-known architect.

As a design for living in harmony with nature:

The house is built on the side of a knoll, commanding to the south and west a panoramic view of the Wapsipinicon River and the broad river valley, and to the north a view of the upward slope of the knoll. As one approaches the house from the drive, the house appears nestled into the hillside. From the river below, it appears as a long spreading structure firmly planted in the slope above one. From within the house, one experiences the pleasure of views off to the river and its valley and upward along the slope of the knoll. These views are important features of the rooms of the house, especially of the

living-dining room, which Wright called the garden room. The views change with the seasons, with the weather, and with the time of day, as does the pattern of sunlight entering the room. The clearstory admits light both early and late in the day. Also plants are brought into the house in the large planter in the center of the room. The glass doors on the north side of the room allow one to walk easily to a paved terrace outside. Thus the house is strongly related visually with nature--the outdoors--and related in a harmonious way.

The house is designed to be comfortable during summer weather. In nearly all rooms, large double doors of glass open to the outside for ventilation. Clearstory windows in every room release hot air and, in addition, bring in added light. The flat roof extends beyond the walls considerably, shading them from the heat of the sun. A remarkable feature of the roof overhangs is the fact that where they project over some of the glass walls they are pierced by large square openings, giving the overhangs the appearance of large-scale trellises. Vines are trained so that their leaves will close the openings over during summer to provide leafy shade.

During the winter, the vine leaves having fallen, the openings in the overhanging roof admit additional sunlight through the glass walls to warm the house. A system of heating which Wright pioneered in this country warms the rooms noiselessly and without drafts. The heat radiates from the concrete floors, heated by hot water in piping embedded in gravel beneath them.

The house was completed in 1950, and for this time it provided favorably the means for summer comfort, and without the expenditure of energy, a fact of increasing interest today. The glass doors and the clearstory windows assured a maximum of natural ventilation, and the broad overhangs augmented by foliage shaded the walls and windows. There was no air conditioning nor any built-in system of forced-air ventilation. The original design called for rigid insulation on top of the roof deck and a covering of sod. Only the insulation was put in place. Perhaps the sod was found to be unnecessary.

Energy conservation during the winter months does not appear to be a feature of the design. The working drawings of the house showed double glazing for the large glass areas, but only single glazing had been installed. The heat loss through single glazing would be considerable, even with the heavy drapery drawn. However, in clear weather the heat gained from the sunlight entering through the glass would certainly aid in warming the house.

To summarize, the house allows its occupants to live in harmony with nature to an unusual degree: psychologically and spiritually by the strong visual relationship of house to the outdoors, by means of views of the landscape at all seasons, by the fact that its occupants may walk outside from many of the rooms, by the connection with nature which the plants in the planter establish, and by the natural light and sunlight which penetrate the glass walls, clearstory windows, and skylights; physiologically by means of the comfort of natural ventilation in summer and warmed floors in winter; and ecologically, in summer at least, by the fact that no energy is used to achieve comfort.

As a design for simple living:

The possibilities for simple living in this house are augmented through reduction of the amount of furniture needed and of the number of separate rooms. Tables, shelving, cabinets, and some seating are built into the house. The freestanding furniture which is still needed in the large living-dining room was specially designed for the house by Wright. This room is skillfully subdivided so that one portion provides the space and built-in shelving, sideboard, and tables needed for dining. The freestanding chairs of the living area and those of the dining area are the same so that all may be used as dining chairs, and a built-in hexagonal table may be combined with freestanding hexagonal tables to form dining tables of various sizes as needed. The table height is specially lowered to serve these chairs. Thus the furniture serves the requirements of both rooms, just as one room serves the needs of separate living and dining rooms, and the design of furniture and architecture in this house are more closely integrated than in almost any other Wright house.

Further simplification includes replacing the conventional garage with a carport, sheltering the automobile but not enclosing it completely, and the omission of both attic and cellar. Wright thought that garage, attic and cellar added unnecessary expense, and well planned storage space with the house is provided as a convenient alternative.

As an example of the work of America's most well-known architect:

Most of Wright's architectural effort was spent on the design of single-family houses, a building type to which most people relate. His willingness to innovate and to make pronouncements on architecture and on American life in general, and the imaginative qualities of his buildings had, by the beginning of the post World War II years of his career, aroused the interest of average Americans in him. He was a colorful figure and probably the only architect that most people have heard of. He is undoubtedly among the greatest architects of his time.

During the years of the Great Depression and until World War II, he evolved and saw built many of his so-called Usonian houses, a design type which resulted from his efforts to provide houses that people of average income could afford and to improve the design of houses for them as well. He slashed all that was unnecessary from the typical American house, and the result provided the basis for many of the features which are found in the Lowell Walter house: a design for living in harmony with nature and for simple living. However, the Walter house was begun in 1948 and completed in 1950, and was built not for a client of average income, but for one of means. In the Walter house the building materials chosen were in many cases more costly than owners of the Depression years could have afforded, the house was larger, and it had a large site with

natural features of beauty beyond the means of Usonian owners.

The importance of the Walter house as an example of Wright's work lies in the fact that, with a spacious and beautiful site to build on and a liberal budget for construction, Wright showed that the principles of design which he had followed for the minimal Usonian houses for Americans of average income had a wider validity, that they applied as well for more spacious and more expensively appointed houses for Americans of somewhat more than average income. Thus the Walter house was a testing of the rule and a kind of culmination of one of Wright's important midwestern house types.

B. Bibliography:

Consultation with Sidney K. Robinson

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April 1980

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: The house is an important example of a midwestern residential type developed by Wright and characterized by its provision for living simply and in harmony with nature.

2. Condition of fabric: Good.

B. Description of Exterior:

1. Over-all dimensions: The house has one story, and the overall length, measured parallel to the bedroom wing and extending from the far corner of the living-dining room to the outer wall of the maid's room, is approximately 150 feet. The plan follows the characteristic tadpole form of Wright's Usonian plan, the bedroom wing of the house constituting the tail of the tadpole and the living-dining room the head.

2. Foundations: Foundation walls, where visible, are of brickwork indistinguishable from the walls of the house above.

3. Wall construction, finish and color: Exterior walls are of dark red bricks laid in running bond; that is, all bricks are stretchers and there are no headers. The faces of the bricks measure eight inches by two-and-a-quarter inches. Vertical mortal joints are finished flush and are colored to match the bricks. Horizontal mortar joints are raked and of uncolored light gray mortar. Mortar joints are three-eighths of an inch

wide. Walls are in good condition except at the brick clearstory at the kitchen, where there is evidence of repaired mortar joints.

4. Structural system: Load-bearing masonry walls and steel T-columns support a reinforced concrete roof slab. The detailing of the T-columns partially conceals them within the woodwork of the glass walls. The floor consists of concrete panels laid, apparently, on a bed of gravel. The roof slab appears to be monolithic.

5. Terraces: One enters the house by means of a sheltered terrace from the carport and parking area, passing along the east side of the length of the bedroom wing to the front door. The roof of the house is extended to provide shelter. The terrace floor consists of the same type of concrete panels used for the floors in the house. A brick retaining wall encloses the outer side of this terrace, which is about five feet above grade level. At the north side of the living-dining portion of the house, in the angle with the bedroom wing, there is an unroofed terrace paved in the same manner.

6. Chimneys: All chimneys are of the same red brick as the walls. Two of the chimneys are close to one another: the fireplace chimney and that of the heating system. The third is at the master bedroom.

7. Openings:

   a. Doorways and doors: The front door is of flush slab design and is of walnut, as is its door frame. The service door nearby and its interior screen door are also of walnut, with a walnut door frame.

   b. Windows: The full height windows in the living-dining room and in the bedrooms are framed in walnut and have no muntins. Some of the windows are fixed; others are outward opening French doors, and these are equipped with inward opening screen doors of walnut. The glazing is of single thickness. Walnut stops are used instead of putty on the exterior side of the glass. At the base of these windows, on top of their bottom rail, an ingenious trough of copper collects the condensed moisture which collects on the inner side of the glass in cold weather, and weep holes through the windows conduct this moisture to the exterior. Discoloration of the lower rail of several of these windows indicates probable areas of rot in the wood. In the entry hall closet and along the outer wall of the gallery (hallway) to the bedrooms, a band of small windows is placed at the ceiling line. These consist of panes of glass eleven inches wide and six inches high set in concrete frames. All rooms have clearstory windows framed in walnut. Many open. There are a few additional windows of more conventional size and shape, framed in walnut and screened.

8. Roof: The roof is a reinforced concrete slab which overhangs the walls about five feet at the living-dining room portion of the house, somewhat less at the bedroom windows, and somewhat more at the entrance terrace. The overhang at one corner of the carport is extended more yet and creates a dramatic effect as one approaches the house. Where the overhangs shade some of the glass walls, they are pierced by large square openings. The branches of vines are trained so that their leaves will close these openings in summer and allow sunlight to penetrate the house in winter. A continuous clearstory lights and ventilates the bedroom wing. Other clearstories do the same for the kitchen, entry hall, and the living room. The roof of the last clearstory is pierced by nine small, square skylights. The edge of the prinicipal roof curves upward gracefully to a level somewhat higher than that of the upper surface of the roof. The soffit and upturning edges of the overhang are plastered and are painted a brick red color which, judging from old color photographs, may have originally been a bit darker than it is now. The clearstory roof has a very narrow overhang with a copper-covered fascia worked in a pattern and curved roughly to the inverted form of the edge of the main roof. Published information about the house states that the whole roof was planned to carry a layer of soil planted with grass, but this is not present.

C. Description of Interior:

1. Floor plans: Living-dining room, entry hall, utility room, and a portion of the kitchen form the main part of the plan. These group in an irregular form, the main element of which is the living-dining room, roughly thirty-two feet square. Attached to this at an angle of 120°, into which a portion of the kitchen extends, is the bedroom wing. It contains along its western side a powder room, a bathroom, two bedrooms, another bathroom, and the master bedroom. A hallway runs along the eastern side of this wing. The main roof of the house continues beyond the master bedroom to form a carport with two parking places, and further still is a small unit comprising a maid's room and bath and a tool room. This unit provides support for the far side of the carport roof.

2. Flooring: This is the same throughout, concrete panels which, in the living-dining room, measured thirty-one inches by sixty-two inches and which are laid in pairs, side by side, to form an over-all basketweave pattern. Panel surfaces are a dark, glossy brick red color. Where the edges of the panels were chipped, one may see that their top surface has an integral red color, somewhat lighter. A few cracked panels were noted. At panel joint differences in level of as much as a quarter of an inch were observed in several parts of the house.

3. Wall and ceiling finish: Living-dining room, entry hall, kitchen-utility room, and tool room walls are brick, both interior and exterior walls. For the other rooms, the exterior walls are brick and the interior partitions are wood-framed, about four inches thick, and surfaced in horizontal boards of walnut eight inches wide with a one-and-three-eighths inch walnut molding at the horizontal joints. This molding projects slightly beyond the face of the boards and is formed in the shape of a projecting dihedral angle. Such a partition also separates the utility space from the kitchen, but is not full height, measuring only seven and a half feet high. The walnut is not stained and has a very fine glossy finish. Ceilings are of sand-finished plaster applied directly to the soffit of the concrete roof slab. At the clearstory ceilings, the plaster is painted a yellowish cream color, but elsewhere they are painted the same brick red color as the soffits of the overhangs. The lower ceilings are approximately 7'-3" high, and the clearstory ceilings are approximately 9'-0" high. In several places the ceiling finish shows evidence of moisture damage and subsequent repairs.

4. Doorways and doors: Closet doors in the entry hall and in the bedrooms are of folding, accordion type and made up of ten-inch wide boards hinged with piano hinges. Other interior doors are of flush slab type. Frames are of a single piece of wood rabbeted to receive the door. All doors and frames are walnut, not stained, and with a clear glossy finish. Doorways are 7'-1" high and slab doors are one-and-three-eighths inches thick. Window frame detailing is concealed. Fixed glass is held by sash members matching the sash members of windows that open.

5. Decorative features and trim There is a great deal of cabinetwork in the house, all of walnut with a fine, clear glossy finish. Cabinet doors are piano hinged. The most prominent feature is the low shelving at the center of the living-dining room, with a planter at its base, that subdivides this room. Here also, near the door to the kitchen, is a built-in buffet and table. Nearby are a built-in counter, bookshelves and table. There is a similar but smaller counter in the entry hall. Kitchen cabinetwork has flush doors. Bedrooms have built-in closets and tables with mirrors. The bedroom hallway has base cabinets and shelving the entire length of the outer wall. The fireplaces are simply detailed in brick, with black metal mesh hanging curtains serving as firescreens. The hearth of the living room fireplace is sunken down two steps and has a specially designed iron grate. An unusual feature of the house is the presence of the Wright-designed furniture in the living-dining room, matching the built-in cabinetwork: side tables, upholstered chairs, and small hexagonal tables.

6. Hardware: The hardware is bronze in finish, plain, and unusual in the use of piano hinges for folding doors and cabinet doors.

7. Mechanical equipment:

   a. Heating: Wright called the system of heating used in this house "gravity heating". The concrete floor panels serve as radiant surfaces for heat coming from hot water circulating in pipes embedded in gravel under the floor panels. In addition there are baseboard convectors at several of the full-height windows and at several other locations as well. There is no air-condition nor system of forced-air ventilation. The clearstory windows and the large area of the French doors are designed to promote the natural circulation of air. The broad roof overhangs are designed to shade the walls to prevent their heating up.

   b. Lighting: At most of the clearstories the lower ceiling projects to form a cove, where fluorescent tubes provide indirect lighting. Other lighting is provided by surface mounted sockets with oversized spherical light globes.

   c. Plumbing: Most unusual are the prefabricated plumbing units in the three bathrooms. These units consist of toilet and tub along one wall. A box containing the washbasin moves along the top of these two fixtures, covering whichever one of them is not in use. These units are made of white, porcelain-enameled steel prinicipally.

D. Site:

1. General setting and orientation: The main portion of the plan is oriented with the fireplace wall to the east and the large glass areas of the room facing south and west. From this portion the bedroom wing extends in a northerly direction, giving the bedrooms a west-northwest exposure approximately. The house is placed at the side of a knoll, which rises at the inner side of the angled plan (northwest) and drops off at the outer side. The view of the river is seen from the west and south windows of the living-dining room. The level of the house is considerably above the river, commanding a fine view of the wooded river valley. The approach is by way of a private gravel road to the highway at the east. There is a graveled parking space and turn-around with a red brick retaining wall at the carport and entrance to the house.

2. Historic landscape design On the knoll above the house is a semi-circular brick wall and bench at the side of a circular area paved in brick. At the center of this area is a place for a fire. Down the hill slightly, on the south side of the house, is a circular pool with a similar

semicircular brick wall partly surrounding it. The living-dining room terrace had a quarter-circle-shaped planting bed adjoining it (seen in old photographs of the house), and retaining walls create wide planters at the south windows of the living-dining room and at the entrance terrace. The ground around the house is planted in lawn. Trees, visible around the house, to the extend that winter conditions reveal, are either native or harmonious in placement and species with native growth in the locality.

3. Outbuildings: The river pavilion situated at the water's edge utilizes the same materials as the house: brick walls, flat concrete roof deck with upturned edges, and walnut wooden elements. The pavilion has two stories, the second entered by means of an exterior stairway to a concrete deck at the second level. The deck spans dramatically from the pavilion to the top of an enormous boulder. The lower level of the pavilion contains storage space for a boat, reached from the water by means of a ramp. Part of the second story deck is enclosed by metal pipes to form a screened sleeping porch. The guest room at the second floor has a fireplace, a minimal kitchenette, and a bath. The river pavilion is in good condition, but needs repair work for its wooden elements and for some of its brickwork.

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PART III. PROJECT INFORMATION

The report of the house was prepared for the National Park Service, Midwest Regional Office, Omaha, Nebraska, by Wesley I. Shank, Professor of Architecture at Iowa State University. The report was donated to the Historic American Buildings Survey, and was prepared for transmittal to the Library of Congress by Susan McCown, an historian with the HABS in Washington, D.C. office, in August 1980.